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Natura 2000-sites: Legal requirements for agricultural and forestry land-use

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Abstract

The agricultural and forestry use of land does not only mark large parts of the European Union, but also a significant share of land within the European ecological network Natura 2000. Member States, therefore, try to exempt as far as possible these land uses from the protection regime of Natura 2000-sites. However, at the same time, Member States latest reports on habitats and wild species of Community importance indicate that, in particular, the intensification of agriculture and forestry in recent decades has made it more difficult to improve conservation statuses or even worsened them. Hence, the aim of this article is to examine in detail the extent to which the protection regime of Article 6(2 and 3) Habitats Directive is applicable to land-use in agriculture and forestry. In this context, of particular relevance is the question of when the use of land in agriculture and forestry or individual management measures within and near Natura 2000-sites are projects for which an appropriate assessment is necessary before implementation; and which, in the case that significant adverse effects to a site cannot be ruled out, are permitted only under the reasons for exemption given in Article 6(4) Habitats Directive. The analysis includes the case law of the European Court of Justice, as well as decisions of the German Federal Constitutional Court and the German Federal Administrative Court.

Keywords

Agriculture, appropriate assessment, Birds Directive, forestry, Habitats Directive, Natura 2000

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1. Introduction

The Habitats Directive (HD) 1992/43/EEC and the Birds Directive 2009/147/EC (formerly Directive 79/409/EEC) are the most important EU instruments[1] in achieving the biodiversity objectives of the Convention on Biodiversity and other international treaties on nature conservation[2] and the Natura 2000-network is the centrepiece of the EU's biodiversity strategy.[3] Under Article 2(2) HD and the 9th recital of the Birds Directive, Member States are to maintain or restore favourable conservation statuses for habitat types and species of Community interest in all of the EU's biogeographical regions.

According to the Member States status reports for the Habitats Directive reporting period 2013 to 2018, out of the 1,389 species in the EU's biogeographical regions, only 27 percent display a good conservation status, while three quarters of the 233 habitat types display a poor or bad status.[4] Compared to the previous reporting period,[5] the status improved for six percent of the species and nine percent of the habitat types. In more than a third of habitat types, a further deterioration was recorded. In the case of European bird species and migratory bird species, less than half of all species have a good population status, while almost 40 percent display a poor or bad status.[6]

The main cause for the often recorded unfavourable conservation statuses is the unsustainable use of land in agriculture and forestry and, in particular, the intensification of agriculture and the loss of high nature value farmlands via the conversion of natural grasslands and pastures into arable land, the greater use of fertilisers and pesticides, the removal of small landscape features and the drainage of areas, as well as the reduction of old-growth forests, clear-cutting and the removal of dead or old trees.[7] Nutrients and pesticides are also brought into Natura 2000-sites from the outside via the air or water and the critical loads for eutrophication have been exceeded widely in many regions of Europe.[8] Overall, the use of land in agriculture and forestry is of particular relevance for achieving favourable conservation statuses for habitats and wild species within and outside of Natura 2000-sites.[9]

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1 European Commission 2016, p. 10 et sqq.; Milieu, IEEP and ICF 2016, p. 14 et sqq.

2 Especially the Ramsar Convention on Wetlands of International Importance (1971), the Bonn Convention on the Conservation of Migratory Species of Wild Animals (1979) and the Bern Convention on the Conservation of European Wildlife and Natural Habitats (1979).

3 European Commission 2020, p. 4 sqq.; ECA 2017, p. 12.

4 EEA 2020, p. 35.

5 European Commission 2015b.

6 EEA 2020, p. 14.

7 Cf. EEA 2020, p. 70 et sqq.; Anderson/Mammides Ambio 2020, 1963 et sqq.

8 Cf. EEA 2017; Kattwinkel et al. Ecological Applications 2011 et sqq.; BVL 2020; Hofmann et al. 2020; Brühl et al. Scientific Reports 2021.

9 EEA 2020, p. 14, 34, 69–87; Tucker et al. 2019, p. 73 et sqq. Cf. Beckmann et al. Global Change Biology 2019 et sqq.; Bowler et al. Long-term declines of European insectivorous bird populations and potential causes 2019; Hallmann et al. PLOS One 2017 et sqq.

'About 40% of the total land area of the EU-28 is agricultural land (Eurostat 2020a). Results show that current agricultural practices are by far the most dominant driver affecting habitats and species (...). However, the richness and abundance of biodiversity associated with agricultural habitats is strongly correlated with the degree of modification (e.g. draining, ploughing) and the intensification of management (e.g. use of fertilisers, irrigation and pesticides). Extensive agricultural management creates and maintains semi-natural habitats with a diverse fauna and flora. Since the 1950s, however, the intensification and specialisation of the agricultural sector has increasingly contributed to ongoing biodiversity loss. Changes in agricultural management are, thus, the most frequently reported type of pressure'.[10]

In addition to the EU-wide provisions on species protection, Natura 2000-sites are the most important instrument for safeguarding favourable conservation statuses. In 2021, the European Commission registered a total of 26,935 Natura 2000-sites in the EU27 (excluding the United Kingdom), which together comprise around 17.5 percent of Europe's land area (764,222 km^2) and 450,752 km^2 expanses of water.[11] The terrestrial share is particularly high in south-eastern European countries (Slovenia 38 percent, Croatia 37 percent, Bulgaria 35 percent, Slovakia 30 percent, Cyprus 30 percent and Greece 27 percent) and in Spain (27 percent). Overall, this is the world's largest ecological network of protected sites.

The conservation status of habitat types and species of Community interest in the Natura 2000-sites is, on average, significantly better than outside of the network.[12] There is also less intensification or land use change in Natura 2000-sites.[13] Nonetheless, there is still considerable room for improvement and, in particular, the impact on entire biogeographical regions is still too small.[14] The dominant change in land-use within the Natura 2000-network was the conversion of natural grassland, transitional woodland-shrub and mosaic farmland into arable land, forests or pastures.[15] Many of the land use changes and intensifications are possible because the protection regime of Art. 6(2 and 3) HD is insufficiently applied in the Member States, especially for agricultural and forestry land.[16] The type and intensity of land-use in agriculture and forestry within the Natura 2000-sites are, therefore, also of great relevance for the protection of Natura 2000-sites and the conservation objectives, as these are predominantly not wilderness areas. Managed forests and grassland, as well as arable land, make up over 60 percent of the terrestrial area of the Natura 2000-network.[17] Furthermore,

10 EEA 2020, p. 73.

11 European Commission 2021b.

12 EEA 2020, p. 118 et sqq.

13 Hermoso/Morán-Ordóñez/Brotons Landscape Ecology 2018 1454 et sqq.; Anderson/Mammides Ambio 2020, 1965 et seq.

14 Cf. EEA 2020, p. 122 et sqq.; Pellissier et al. Conservation Biology 2020; Rada et al. Diversity and Distributions 2019; WWF 2017.

15 Hermoso/Morán-Ordóñez/Brotons Landscape Ecology 2018.

16 Cf. ECA 2017, p. 33 et sqq.; Milieu, IEEP and ICF 2016, p. 102 et sqq.; Sundseth/Roth 2013.

17 EEA 2020, p. 112 et sqq.

Natura 2000-sites are also affected by surrounding land use and related emissions (e.g. nitrogen and pesticide emissions).[18]

The following article examines the extent to which the protection regime of Article 6 (2 and 3) HD is applicable to land-use in agriculture and forestry within or in the vicinity of Natura 2000-sites. For this purpose, section 2 gives an overview of the legal protection regime of the Natura 2000-network. Then, in section 3, it is discussed whether and when the use of land in agriculture and forestry or individual management measures are projects that require assessment and which requirements apply to land-use that does not require assessment. A brief overview of the requirements for an appropriate assessment is given in section 4. Section 5 then looks into the question of when, in the event of an established incompatibility, land-use or individual management measures would be permitted as an exception.

2. The legal protection regime of Natura 2000

Based on the Special Protection Areas (SPA) under Article 4 Birds Directive and Sites of Community Importance (SCI) under Article 3 and 4 HD, the European Union (EU) and its Member States created the ecological network Natura 2000. The Network serves to protect 231 habitat types and 450 wild species, which have been identified as conservation priorities.[19] According to the European Court of Justice (ECJ),[20] it protects European natural heritage, which is why it requires a high level of protection, a high level of accuracy, clarity and certainty in implementing the two Directives, as well as a high level of necessary monitoring and control in the respective Member States.[21] This concerns not only the protection regime for Natura 2000-sites, but also the obligations for species protection according to Article 12 HD and Article 5 Birds Directive, which apply in and outside Natura 2000-sites.[22]

With their regulations, the Member States must ensure that the requirements of the HD and Birds Directive are fully observed, when it comes to official decisions.[23]

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18 Kelleghan et al. Atmospheric Environment 2021; Liess et al. Water Research 2021; Buijs/Mantingh 2020; Hofmann et al. 2020; Tegner Anker et al. JEEPL 2019; Sánchez-Bayo/Wyckhuys Biological Conservation 2019; Möckel JEEPL 2019.

19 European Commission 2015b, p. 3.

20 All ECJ decisions can be located based on their case number and can be freely accessed under: http://curia.europa.eu/juris/recherche.jsf?language=en.

21 ECJ, adjudication of 20.10.2005 – C-6/04, margin number 21, 25 et seq. and Ls. 1; adjudication of 10.1.2006 – C-98/03, margin number 59; adjudication of 10.5.2007 – C-508/04, margin number 58 et sqq., 73, 79, 98.

22 Cf. the recent jurisdiction of ECJ, adjudication of 28.10.2021 – C-357/20; adjudication of 4.3.2021 – C-473/19 and C-474/19; adjudication of 2.7.2020 – C-477/19; adjudication of 11.6.2020 – C-88/19; adjudication of 10.10.2019 – C-674/17.

23 Cf. ECJ, adjudication of 12.7.2007 – C-507/04, margin number 137, 162, 280 et seq., 287.

No legal uncertainties must remain[24] and a Directive-compliant implementation, as well as an effective and timely control by the competent authorities, must be ensured.[25] Imprecise, indeterminate or ambiguous regulations that allow leeway for an interpretation contradicting European law and/or can only be brought into line with the two Directives by means of a Directive-conform interpretation are, therefore, not sufficient.[26] According to the ECJ and contrary to general ECJ case law,[27] inadequate or even contradicting legal regulations are inapplicable and not merely to be interpreted in conformity with the Directives.[28] In the absence of (correct) national regulations, the competent authorities and courts have to apply directly the relevant regulations of the Directives, provided that they are sufficiently specific and unconditional.[29] This does neither require the subjective rights of individuals nor does an indirect burden on third parties preclude direct application, since the latter follows solely from a State's obligation to implement under Article 288(3) TFEU.[30]

For Natura 2000-sites, in 1992, the Member States of the European Union agreed an ambitious protection regime in Article 6 HD,[31] which has, however, not yet been fully implemented in the Member States.[32] Under Article 4 HD and Article 4 Birds Directive, the SCI and SPA listed are legally binding and have to be established with the necessary protection regulations and specific conservation objectives for the respective protected habitat types, as well as animal and plant species, including those species characteristic of the habitat types concerned. In addition, under Article 6(1) HD, management plans are to be drawn up for each Natura 2000-site and the necessary maintenance and development measures have to be determined and implemented.

Furthermore, under Article 6(2) HD, the Member States are obliged to avert deterioration and disruptions with the help of preventative protective measures. In addition, under Article 6(3) HD, all projects and plans that, individually or in combination with other plans and projects, could significantly adversely affect a Natura 2000-site, must be checked for their compatibility with the conservation objectives of the Natura

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24 ECJ, adjudication of 20.10. 2005 – C-6/04, margin number 37; adjudication of 10.5.2007 – C-508/04, margin number 79.

25 Cf. ECJ, adjudication of 26.1.2012 – C-192/11, margin number 46.

26 Cf. ECJ, adjudication of 10.5.2007 – C-508/04, margin number 79; adjudication of 20.10.2005 – C-6/04, margin number 103 et seq.; adjudication of 10.1.2006 – C-98/03, margin number 77 et seq.

27 E.g. ECJ, adjudication of 26.9.2000 – C-262/97, margin number 40; adjudication of 04.2.1988 – 157/86, margin number 11.

28 ECJ, adjudication of 10.5.2007 – C-508/04, margin number 79 et seq.

29 ECJ, adjudication of 22.6.1989 – 103/88, margin number 29 et seqq.; adjudication of 11.08.1995 – C-431/92, margin number 24 et seq., 37 et seqq.; adjudication of 7.1.2004 – C-201/02, margin number 64 et seq.

30 ECJ, adjudication of 11.8.1995 – C-431/92, margin number 24 et seq., 37 et sqq.; adjudication of 7.1.2004 – C-201/02, margin number 64 et seq.; adjudication of 10.1.2006 – C-98/03, margin number 40 et seq.

31 In detail European Commission 2018a.

32 ECA 2017; European Commission 2016; Milieu, IEEP and ICF 2016; Sundseth/Roth 2013.

2000-site before they are approved and implemented.[33] If, on the basis of objective circumstances and the best available scientific knowledge, a significant adverse effect to a Natura 2000-site cannot be ruled out with certainty,[34] the proposed projects and plans must be prohibited by the respective Member States.[35] Under European law, these projects come, therefore, with a reservation of assessment and prohibition. In practice, however, even after two decades, there are considerable problems in carrying out full appropriate assessments for all relevant projects and plans in the member states.[36]

3. The necessity of Natura 2000-appropriate assessments for land-use in agriculture and forestry

'Any plan or project not directly connected with or necessary to the management of the site, but likely to have a significant effect thereon, either individually or in combination with other plans or projects, shall be subject to appropriate assessment of its implications for the site in view of the site's conservation objectives' (Article 6(3)(1) HD). For the use of land in agriculture and forestry, it has, therefore, to be elucidated when measures are part of the conservation and restoration management within the meaning of Article 6(1) HD or projects that are subject to review.[37] This distinction is particularly difficult for semi-natural habitats like forest or grassland.[38]

3.1. Exempted conservation and restoration measures

As an exception, the scope of such site management measures is to be interpreted narrowly and only given, if they are intended to promote the respective conservation objectives in the area.[39] After all, only in these cases can significant adverse effects be generally excluded. The measure must be carried out by the site administration or on their behalf. Other

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33 ECJ, adjudication of 14.10.2010 – C-226/08, Rn 48 et seq.; adjudication of 24.11.2011 – C-404/09, margin number 125, 174; adjudication of 17.4.2018 – C-441/17, margin number 148; adjudication of 29.7.2019 – C-411/17, margin number 122–145. In detail European Commission 2021a; European Commission 2018a; Garcia-Ureta Journal of Property, Planning and Environmental Law 2018 and Möckel Nature Conservation 2017c.

34 On the difficulties of certainty Balias Journal of International Wildlife Law and Policy 2018; Sobotta Journal for Nature Conservation 2018, p. 263.

35 Settled case law ECJ, adjudication of 29.7.2019 – C-411/17, margin number 134; adjudication of 7.11.2018 – C-293/17 and C-294/17, margin number 59–73; adjudication of 17.4.2018 – C-441/17, margin number 117–120, 179; adjudication of 14.1.2016 – C-399/14, margin number 43 et seq., 48 et seq.; adjudication of 11.9.2012 – C-43/10, margin number 111 et sqq.; adjudication of 7.9.2004 – C-127/02, margin number 41–49, 56–59.

36 ECA 2017, p. 33 et sqq.; Milieu, IEEP and ICF 2016, p. 102 et sqq.; Sundseth/Roth 2013. cf. also Balias Journal of International Wildlife Law and Policy 2018.

37 Cf. ECJ, adjudication of 17.4.2018 – C-441/17, margin number 122–127.

38 In detail Sobotta Journal for Nature Conservation 2018.

39 ECJ, adjudication of 4.4.2010 – C-241/08, margin number 50–56.

measures that serve other goals in the area (e.g. economic interests or promote tourism), on the other hand, are not covered by the exemption, as considerable impairment of the conservation objectives cannot generally be ruled out here.[40] The same applies to site-defining management measures, such as the land-use in agriculture and forestry or hunting, when they are not carried out on behalf of the site administration, but down to private economic interests[41] or if such measures have not been designed as part of an integrated management plan in order to ensure that they are compatible with the respective conservation objectives.[42] Not every management plan is a plan within the meaning of Art. 6(1) HD.[43]

3.2. Definition of 'Project'

Neither the HD nor the Birds Directive define what a project is. According to the ECJ, it is, nevertheless, a term under European law that is not defined by the Member States individually.[44] Due to the high level of protection, the Court adopts a wider interpretation of the term 'project'.[45] Here, the Court gets its bearing from the definition of the term in Article 1(2)(lit. a) Directive 2011/92 on the assessment of the effects of certain public and private projects on the environment (EIA Directive); according to which, in addition to the erecting of structures or other facilities, projects include all other interventions into nature and the landscape including those geared towards the extraction of mineral resources.[46] In its decision of 7 November 2018, the ECJ emphasised that the definition of a project under habitat law also includes non-physical interventions (e.g. substantive or acoustic emissions).[47] Projects are, therefore, not only measures for which approval or notification requirements exist.[48] The only decisive factor is the

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40 European Commission 2021a, p. 13; European Commission 2018a p. 16–20, 38; Sobotta Journal for Nature Conservation 2018, p. 263; Epiney/Gammenthaler 2009, p. 93 et seq.

41 ECJ, adjudication of 4.4.2010 – C-241/08, margin number 39, 56; adjudication of 13.6.2002 – C-117/00, margin number 22–33.

42 ECJ adjudication of 17.4.2018 – C-441/17, margin number 122–127; European Commission 2021a, p. 13 et seq.; European Commission 2015a. Cf. Cortina/Boggia Journal of Environmental Management 2014 et sqq.

43 For the forest management plan in Białowieska, see ECJ adjudication of 17.4.2018 – C-441/17, margin number 122–127. With regard to the practical synergies Trentanovi et al. Journal for Nature Conservation 2018.

44 ECJ, adjudication of 10.1.2006 – C-98/03.

45 ECJ, adjudication of 7.9.2004 – C-127/02, margin number 23 et sqq., 34; adjudication of 10.1.2006 – C-98/03, margin number 41–45; adjudication of 26.5.2011 –C-538/09, margin number 45; adjudication of 7.11.2018 – C-293/17 and C-294/17, margin number 61–73; adjudication of 29.7.2019 – C-411/17, margin number 122 et sqq.

46 Settled case law ECJ, adjudication of 14.1.2010 – C-226/08, margin number 38 with further references; adjudication of 10.1.2006 – C-98/03, margin number 40 et seq.; adjudication of 7.9.2004 – C-127/02, margin number 24 et sqq.

47 ECJ, adjudication of 7.11.2018 – C-293/17 and C-294/17, margin number 50–73 and 1st recital.

48 ECJ, adjudication of 14.1.2016 – C-399/14, margin number 68 et seq.; adjudication of 10.1.2006 – C-98/03, margin number 40 et sqq.

potential impact of human activities on Natura 2000-sites.[49] Due to impact interplay, projects and plans outside of a Natura 2000-site may also require an appropriate assessment, if they impair the conservation objectives in the area (e.g. the input of emissions via the air, water, runoff or due to fragmentation effects).[50] The indirect effects of a project are also relevant to the assessment (e.g. via respective food chains)[51] provided that they can be clearly assigned, since the appropriate assessment does not require evidence of causality, since it is rather sufficient that a project probably exerts significant effects.[52]

The term 'project' thus includes all activities in or in the vicinity of Natura 2000-sites that are likely to have significant effect on a Natura 2000-site individually or in conjunction with other plans and projects.[53] The nature, size and location of a project are only of significance when assessing impact in the appropriate assessment. Whether there is a project that needs to be assessed must be established as part of an official screening.[54] The summary assessment of the likelihood of significant impairment must be made on the basis of objective circumstances, taking into account the special characteristics and environmental conditions of the Natura 2000-site concerned.[55]

In Germany, the Federal Administrative Court (BVerwG)[56] raised the question of whether this impact-focused concept of a project requires restricting planned impacts on

49 Cf. ECJ, adjudication of 29.7.2019 – C-411/17, margin number 134 et sqq.; adjudication of 7.11.2018 – C-293/17 and C-294/17, margin number 50–73; adjudication of 14.1.2016 – C-399/14, margin number 68 et seq.; adjudication of 10.1.2006 – C-98/03, margin number 40 et sqq. BVerwG, adjudication of 12.11.2014 – 4 C 34.13, margin number 29; adjudication of 19.12.2013 – 4 C 14.12, margin number 28; decision of 18.5.2004 – 7 B 18.04, margin number 24.

50 ECJ, adjudication of 29.7.2019 – C-411/17, margin number 136 et sqq., adjudication of 24.11.2011 – C-404/09, margin number 146 et sqq., 166 et sqq.; adjudication of 11.9.2012 – C-43/10; adjudication of 13.12.2007 – C-418/04, margin number 256 et seq.; adjudication of 20.10.2005 – C-6/04, margin number 34; BVerwG, adjudication of 18.12.2014 – 4 C 35.13, margin number 34, 43 et seq.; adjudication of 28.3.2013 – 9 A 22.11, margin number 84, 88 et seq. On genetic exchange ECJ, adjudication of 24.11.2011 – C-404/09, Slg. 2011, I-11853 margin number 146 et sqq., 166 et sqq.; BVerwG, adjudication of 14.4.2010 – 9 A 5.08, margin number 32–34; decision of 23.1.2015 – 7 VR 6.14, margin number 16; adjudication of 14.7.2011 – 9 A 12.10, margin number 93.

51 Cf. e.g. BVerwG, adjudication of 9.7.2009 – 4 C 12.07, margin number 11.

52 Cf. ECJ, adjudication of 10.11.2016 – C-504/14, margin number 29; adjudication of 14.1.2016 – C-399/14, margin number 42; adjudication of 14.1.2016 – C-141/14, margin number 58; adjudication of 24.11.2011 – C-404/09, margin number 142.

53 ECJ, adjudication of 7.11.2018 – C-293/17 and C-294/17, margin number 67. In detail European Commission 2018a, p. 35, 39 et sqq. and Möckel Nature Conservation 2017d.

54 ECJ, adjudication of 7.9.2004 – C-127/02, margin number 43 et seq.; adjudication of 26.5.2011 – C-538/09, margin number 39; adjudication of 21.7.2011 – C-2/10, margin number 41 et seq.; adjudication of 12.4.2018 – C-323/17, margin number 31–40. Cf. European Commission 2021a, p. 11 et sqq.

55 ECJ, adjudication of 7.9.2004 – C-127/02, margin number 44, 49; adjudication of 26.5.2011 – C-538/09, margin number 39; BVerwG, adjudication of 18.12.2014 – 4 C 35.13, margin number 33, 48; adjudication of 17.1.2007 – 9 A 20.05, margin number 61.

56 From 2002 onwards, BVerwG decisions can be located, based on their case number and can be freely accessed under: https://www.bverwg.de/suche. References to the locations of earlier decisions are provided in this article.

protected areas to distinguish Article 6(3) HD from the general prohibition of changes and disturbances in Article 6(2) HD.[57] According to the BVerwG, activities that are subject to a mandatory assessment would only exist if there was an opportunity to check whether they were compatible with the conservation objectives of the protected area on the basis of plans, concepts or established practice, which implies that ad hoc measures do not constitute projects.[58] In this way and contrary to the impact-focused approach, the Court includes considerations of practicality when determining what a project is — a line of argument that has not been recognised in the ECJ's case law up to now.[59]

3.3. Land-use in agriculture and forestry as projects

In their law or regulations for protected sites, Member States have repeatedly exempted land-use in agriculture and forestry from the appropriate assessment or did not classify it as a project within the meaning of Article 6(3) in their justifications or a rule in general.[60] The ECJ has opposed this practice repeatedly.[61] Following the ECJ, the intended general anticipated exemption of certain activities and projects is only permitted if the provisions justifying an exemption ensure systematically and in each individual case that the exempted project and activities do not cause disruptions that could significantly impair the protected areas.[62] For this purpose, the mere existence of general protective regulations is not sufficient, if they only reduce, but not exclude, the risk of considerable impairment.[63] In particular, the assessment of cumulative effects of other projects and plans[64] required under Article 6(3) HD can hardly be captured fully and adequately by anticipating regulations — which is why their scope is severely limited.[65]

With regard to land-use in agriculture and forestry, the ECJ has repeatedly affirmed its classification as a project and, therefore, the applicability of the appropriate

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57 BVerwG, adjudication of 13.4.2013 – 4 C 3.12, margin number 30.

58 BVerwG, adjudication of 8.1.2014 – 9 A 4.13, lead sentence 6 and margin number 55. Confirming BVerwG, decision of 24.3.2015 – 4 BN 32.13, margin number 34.

59 In detail Möckel Nature Conservation 2017d, p. 42 et seq.

60 So in Germany until 2007: since its condemnation by the ECJ (adjudication of 10.1.2006 – C-98/03, margin number 39–45), the Federal Government indicated in its explanation to the amended Federal Nature Conservation Act that land-use in agriculture, forestry and fishing are usually not a project under the rules of good subject specific practice (BT-Drs. 16/6780, p. 13; BT-Drs. 16/12274, p. 65). See also Schumacher/Fischer-Hüftle, BNatSchG, 2021, p. 885 e seq., 943; Mühlenberg/Möckel/Sattler 2021.

61 ECJ, adjudication of 26.5.2011 – C-538/09, margin number 41 et sqq.; adjudication of 4.3.2010 – C-241/08, margin number 36; adjudication of 10.1.2006 – C-98/03, margin number 41.

62 Cf. ECJ, adjudication of 26.5.2011 – C-538/09, margin number 41 et sqq.; adjudication of 4.4.2010 – C-241/08, Slg. 2010, I-1697 margin number 36; adjudication of 10.1.2006 – C-98/03, margin number 41.

63 ECJ, adjudication of 26.5.2011 – C-538/09, margin number 63; Cf. ECJ, adjudication of 4.4.2010 – C-241/08, margin number 39, 56. Cf. Möckel Nature Conservation 2017d, p. 47 et seq.; Schoukens JEEPL 2014.

64 See Möckel Nature Conservation 2017a, p. 65–68.

65 In detail Möckel Nature Conservation 2017d, p. 47 et seq.

assessment. In 2018, on the basis of a preliminary Dutch inquiry,[66] the ECJ detailed that agricultural management measures, such as fertilisation or grazing with their physical effects (e.g. fencing, feeding and treading), but also non-physical inputs (e.g. nutrients), can be projects, unless it can be ruled out with certainty that they can significantly impair Natura 2000-sites individually or in conjunction with other projects and plans.[67] The same applies to pesticide use in agriculture and forestry, the choice and intensity of agricultural and forestry crops or animal husbandry,[68] soil cultivation measures (e.g. grassland ploughing) including drainage and irrigation[69] and the manner of agricultural, forestry and fishery harvesting and extraction,[70] as well as plans that foresee such agricultural or forestry measures without being an integrated part of the site management plan.[71,72] The court reaffirmed its strict requirements for anticipatory exemptions, even when combined with compensatory mitigation measures as part of a programmatic approach.[73] It also stressed that mere average parameters are not enough for an exemption[74] and that unfavourable conservation statuses — as exist in many habitats and species of Community importance (see 2) — limit the admissibility of projects and plans.[75]

According to the Court of Justice, only recurrent agricultural land uses do not require an appropriate assessment that were permitted under national law before the Directive came into force (1992) and that continue to be classified as one and the same project.[76]

3.4. The categorisation of recurring measures as projects requiring assessment

According to the ECJ, the protective purpose of the HD requires that each intervention must be assessed separately as a matter of principle.[77] However, the ECJ recognises that

66 On the background, hopes and legal consequences of the ECJ decision in Denmark, see Kegge/Drahmann JEEPL 2020; Schoukens JEEPL 2018.

67 ECJ, adjudication of 7.11.2018 – C-293/17 and C-294/17, margin number 59–73, 113–120.

68 Cf. ECJ, adjudication of 18.12.2007 – C-186/06, margin number 26 et sqq.; 13.6.2002 – C-117/00, margin number 22–33; adjudication of 25.11.1999 – C-96/98, margin number 29, 45 et seq.

69 Cf. ECJ, adjudication of 25.11.1999 – C-96/98, margin number 29, 45 et seq.

70 Cf. ECJ, adjudication of 4.3.2021 – C-473/19 and C-474/19; adjudication of 4.4.2010 – C-241/08, margin number 39, 56; adjudication of 7.9.2004 – C-127/02, margin number 27.

71 ECJ, adjudication of 17.4.2018 – C-441/17, margin number 106–193. Cf. Sobotta Journal for Nature Conservation 2018, p. 263.

72 Similarly European Commission 2015a, p. 76 et sqq.; European Commission 2012, 2012, p. 45 et sqq.; European Commission 2014, p. 29 et seq.

73 ECJ, adjudication of 7.11.2018 – C-293/17 and C-294/17, margin number 92–104, 116–120. Cf. Squintani RECIEL 2020.

74 ECJ, adjudication of 7.11.2018 – C-293/17 and C-294/17, margin number 118 et seq.

75 ECJ, adjudication of 7.11.2018 – C-293/17 and C-294/17, margin number 103.

76 ECJ, adjudication of 7.11.2018 – C-293/17 and C-294/17, margin number 86. Cf. ECJ; adjudication of 29.7.2019 – C-411/17, margin number 127–129; adjudication of 14.1.2010 – C-226/08, marginal number 47.

77 ECJ, adjudication of 14.1.2010 – C-226/08, margin number 37–41; adjudication of 7.9.2004 – C-127/02, margin number 28.

recurring measures can be regarded as a single project within the meaning of Article 6(3) Habitats Directive if, due to their nature or the circumstances in which they are carried out, they can be regarded as a uniform measure, in particular, when they always follow the same purpose.[78] In the case of a uniform project, Natura 2000-sites are protected during the entire duration of the project by the general ban on deterioration and disturbance under Article 6(2) HD, which, according to the ECJ, requires a level of protection that is similar to Article 6(3) HD[79] and obliges Member States not merely to be reactive, but also to take preventative and repressive action.[80] While the permanent operation of facilities constitutes only one project despite long periods of time (e.g. a highway), in the case of intermittent, but regularly recurring measures (e.g. maintenance measures;[81] agricultural, forestry or fishing management measures[82]), the question arises about whether this is a coherent project or several successive individual projects and whether a Member State may respectively adopt procedural rules in this regard.

In principle, in view of the impact-focussed concept of a project and the existing dynamics in the Natura 2000-site concerned, like the development of species and climate change or changing emission situations, new interventions have to be assessed on the basis of the situation at the time of the planned measures, even if the latter are comparable with old interventions in terms of type and extent.[83]

Using the example of agricultural fertilisation and grazing, the ECJ showed, in 2018, that land-use in agriculture and forestry can only be classified under certain conditions as permanent projects for which no Natura 2000-appropriate assessment is necessary.[84] The Dutch court had asked whether a long-term project is constituted, when the quantities and techniques of fertilisation 'which themselves evolve over time as a result of technical and regulatory changes and, secondly, nitrogen deposition caused by the application of fertilisers has not, overall, increased after the entry into force of that provision'.[85] While the second aspect is irrelevant according to the ECJ, since it does not exclude the possibility that nitrogen deposits have increased in the individual protected areas, the changes in management are of definite relevance.[86]

Specifically, according to the ECJ, the obligation to assess land-use in agriculture and forestry depends on whether it has had a common purpose, since the HD came into force in 1992 and whether the location and circumstances of its practices (amongst others

78 ECJ, adjudication of 14.1.2010 – C-226/08, margin number 47–51; adjudication of 29.7.2019 – C-411/17, margin number 127–129.

79 Settled case law ECJ, adjudication of 14.1.2016 – C-399/14, margin number 52 with further references.

80 ECJ, adjudication of 7.11.2018 – C-293/17 and C-294/17, margin number 85, 134; adjudication of 13.12.2007 – C-418/04, margin number 208, 217.

81 ECJ, adjudication of 14.1.2010 – C-226/08, margin number 35 et sqq.

82 ECJ, adjudication of 7.9.2004 – C-127/02, margin number 21 et sqq.; adjudication of 7.11.2018 – C-293/17 and C-294/17, margin number 74–86.

83 Cf. ECJ, adjudication of 9.9.2020 – C-254/19, margin number 59; adjudication of 14.1.2016 – C-399/14, margin number 58–62; BVerwG, adjudication of 12.3.2008 – 9 A 3.06, margin number 89.

84 ECJ, adjudication of 7.11.2018 – C-293/17 and C-294/17, margin number 74–86.

85 ECJ, adjudication of 7.11.2018 – C-293/17 and C-294/17, margin number 81.

86 ECJ, adjudication of 7.11.2018 – C-293/17 and C-294/17, margin number 82–84.

types, measures and techniques) have remained the same.[87] However, particularly in the case of agricultural land use, cultivation has changed significantly in the last 28 years due to, for example, new crops, varieties, livestock species and machinery, changes in the management of fertilisers and crop protection and legal changes; up to 2017, intensification measures have increased yields significantly.[88] Studies around the world show that agricultural intensification is regularly accompanied by the deterioration of the affected biotopes and wild species.[89] In addition, many of the pesticides, biocidal products and their active ingredients used today were only developed, approved and placed on the market after 1992, which is why reference to unchanged management cannot be made.

Agricultural and forestry land-use within and in close vicinity to a Natura 2000-site that is categorised as a permanent project does not require a Natura 2000-appropriate assessment; however, such activities fall under Article 6(2) HD, according to which Member States must ensure that the latter do not cause disturbances that can significantly impair the objectives of the HD and the conservation objectives of the Natura 2000-site concerned.[90] The probability or risk of an impairment is sufficient here. The ECJ considered it to be sufficient if national law allows the monitoring and controlling of facilities whose activities cause inputs or interference in Natura 2000-sites and if the possibility of sanctioning exists that can go as far as the closure of the respective facility.[91] Since Article 6(2) HD provides the same level of protection as Article 6(3) HD,[92] the protection of integrity may also require a retrospective appropriate assessment, based on the current situation, if area protection cannot be achieved otherwise or if an exception under Article 6(4) HD is meant to be granted despite significant impairments.[93]

If individual management measures in agricultural and forestry land-uses change within and in the vicinity of Natura 2000-sites (e.g. due to different fertilisers or pesticides respectively or their quantities), this constitutes a new project,[94] which is to be subjected to a screening and, if necessary, a comprehensive appropriate assessment by the competent nature conservation authority.

3.5. De minimis thresholds

The Dutch court had also asked the ECJ whether 'certain projects which do not exceed a certain threshold value or a certain limit value in terms of nitrogen deposition from the requirement for individual approval, since the cumulative effects of all the plans

87 ECJ, adjudication of 7.11.2018 – C-293/17 and C-294/17, margin number 86.

88 European Commission 2018b, p. 6 et sqq. For Germany BLE 2017, p. 72; BMEL 2018, p. 13.

89 Beckmann et al. Global Change Biology 2019 et sqq.

90 ECJ, adjudication of 7.11.2018 – C-293/17 and C-294/17, margin number 85.

91 ECJ, adjudication of 7.11.2018 – C-293/17 and C-294/17, margin number 137 and 7th recital.

92 ECJ, adjudication of 7.11.2018 – C-293/17 and C-294/17, margin number 87; adjudication of 14.1.2016 – C-399/14, margin number 52; adjudication of 15.5.2014 – C-521/12, margin number 19.

93 ECJ, adjudication of 14.1.2016 – C-399/14, margin number 33, 42–46, 54–62. Cf. BVerwG, decision of 6.3.2014 – 9 C 6.12, margin number 28, 35, 39.

94 ECJ, adjudication of 7.11.2018 – C-293/17 and C-294/17, margin number 86 and 2th recital.

or projects likely to create such deposition were subject in advance to an "appropriate assessment" [of the Programma Aanpak Stikstof 2015–2021] within the meaning of Article 6(3) of that Directive'.[95] In Germany, too, so-called substance- and area-related de minimis thresholds have been established by the authorities[96] and recognised by the Federal Administrative Court (BVerwG)[97] with reference to the proportionality principle; in case these thresholds are not violated, an appropriate assessment is not required provided that the project does not cause any further impairments.[98]

In continuation of its case law on anticipated exemptions, the ECJ has now emphasised that exempting de minimis thresholds must not lead to projects being admitted without an appropriate assessment, although significant negative effects on a Natura 2000-site cannot be ruled out without scientific doubt.[99] National courts must, therefore, thoroughly and comprehensively examine the scientific validity of the threshold values with regard to the requirements under Article 6(3) HD. In particular, it must be assessed whether there is already a risk that below the respective de minimis thresholds, individual projects alone or in conjunction with other plans and projects can cause considerable impairments.[100] Only if there is no reasonable scientific doubt that there will be no significant effects on Natura 2000-sites in each individual case, such exempting de minimis thresholds can be reconciled with Article 6(3) HD. The mere reference to average values is not sufficient in this context, since impairments depend, in particular, on the scope and intensity of activities, the distance between the place of activities and the protected area in question, as well as special conditions.[101]

According to the ECJ, also certain areas of activity or types of facilities cannot be excluded based on, for example, their small size or low cost of activities,[102] even if they have already shaped the area, like for instance, agriculture, forestry, fishing or hunting,[103] or if the observance of conservation objectives has been agreed

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95 ECJ, adjudication of 7.11.2018 – C-293/17 and C-294/17, margin number 105.

96 Lambrecht/Trautner 2007 and Balla et al. 2013. Cf. Wulfert et al. 2015.

97 Cf. BVerwG, adjudication of 23.4.2014 – 9 A 25.12, margin number 45 m.w.N.; decision of 6.3.2014 – 9 C 6.12, margin number 23; adjudication of 28.3.2013 – 9 A 22.11, margin number 65; adjudication of 6.11.2012 – 9 A 17.11, margin number 62, 93 and lead sentence 3; decision of 5.9.2012 – 7 B 24.12, margin number 7, 12; adjudication of 29.9.2011 – 7 C 21.09, margin number 42–44; adjudication of 12.3.2008 – 9 A 3.06, margin number 124; adjudication of 17.1.2007 – 9 A 20.05, margin number 49 et seq.

98 Sceptical about compliance with the directive Schumacher/Fischer-Hüftle, BNatSchG, 2021, p. 916–922; Möckel Nature Conservation 2017a. Cf. also Tegner Anker et al. JEEPL 2019.

99 ECJ, adjudication of 7.11.2018 – C-293/17 and C-294/17, margin number 105–112 and 4th recital.

100 ECJ, adjudication of 7.11.2018 – C-293/17 and C-294/17, margin number 111.

101 ECJ, adjudication of 7.11.2018 – C-293/17 and C-294/17, margin number 116–119.

102 Cf. ECJ, adjudication of 26.5.2011 – C-538/09, margin number 55 et seq.; adjudication of 21.9.1999 – C-392/96, margin number 66; adjudication of 10.1.2006 – C-98/03, margin number 43 et seq.; adjudication of 4.4.2010 – C-241/08, margin number 31.

103 ECJ, adjudication of C-241/08, Slg. 2010, I-1697 margin number 39, 56; adjudication of 17.4.2018 – C-441/17, margin number 127.

contractually.[104] After all, whether an activity or project has significant negative effects depends not only on its type and extent, but also on the sensitivity and condition of the habitat types and species protected in the respective area, as well as on previous pollution and additional cumulative projects and plans.[105] As a result, even small projects can have significant negative effects. In addition, the overall effect of cumulative impacts on habitats and species does not increase in a linear, but exponential manner due to decreasing resilience.[106]

As a result, the requirements, specified by the ECJ for anticipated exemptions and de minimis thresholds, can only be ensured for individual Natura 2000-sites and, due to the dynamics in the area, only for a limited period of time.

4. Requirements for the Natura 2000-appropriate assessment

The appropriate assessment requires an analysis of the relevant impact factors of a project, as well as a forecast of its negative impacts on the Natura 2000-site in question.[107] Due to the required certainty, uncertainties in the assessment of the potential effects and their significance are at the detriment of the project.[108] According to the ECJ, the assessment must not be incomplete and must contain complete, precise and definitive statements that are suitable to dispel any reasonable scientific doubt as to the effects of the plans or projects proposed in the relevant protected area.[109] Both must be assessed for the potential impacts on the habitat types and species and the related conservation objectives for which the Natura 2000-site has been designated. Furthermore, according to the ECJ, the effects on all HD species and HD habitat types occurring in or outside the area must be listed and discussed, insofar as these effects are likely to impair the conservation objectives of the area.[110]

Whether an agricultural and forestry land-use or an individual management measure can lead to a significant impairment of a Natura 2000-site requires an individual assessment, which depends largely on nature conservation specific findings and assessments of the area and project in question.[111] The assessment must be based on the current scientific state-of-the-art and the best relevant scientific insights, including

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104 ECJ, adjudication of C-241/08, Slg. 2010, I-1697 margin number 55.

105 Cf. ECJ, adjudication of 26.5.2011 – C-538/09, margin number 55 et seq.; adjudication of 21.9.1999 – C-392/96, margin number 66. In detail Möckel Nature Conservation 2017a, p. 65–68.

106 Cf. Siviter et al. Nature 2021; Liess et al. Scientific Reports 2016.

107 In detail European Commission 2021a, pp. 25–51; European Commission 2018a, pp. 39–52 and Möckel Nature Conservation 2017a.

108 Explicit ECJ, adjudication of 11.9.2012 – C-43/10, margin number 112.

109 Settled case law ECJ, adjudication of 7.11.2018 – C-293/17 and C-294/17, margin number 98, 117 with further references.

110 ECJ, adjudication of 7.11.2018 – C-461/17, margin number 39.

111 Settled case law BVerwG, decision of 7.2.2011 – 4 B 48.10, margin number 6; adjudication of 12.3.2008 – 9 A 3.06, margin number 68 and adjudication of 17.1.2007 – 9 A 20.05, margin number 43.

generally recognised empirical principles and research methods,[112] although the German BVerwG also sees limits in the obligation to investigate.[113] With regard to substantial inputs, the BVerwG has stated several times that, in principle, any project-related violation of recognised critical load thresholds represents a significant impairment in the case of habitat types or species protected in the area.[114]

5. Exceptional approval despite Incompatibility

In case of an incompatibility, the authorities can approve a project as an exception under Article 6(4) HD, if there are compelling reasons of overriding public interest, no reasonable alternatives exist with regard to 'how' and 'where' to achieve the project and the coherence of the Natura 2000-network is safeguarded by compensation measures.[115] Regarding priority habitat types and species under Article 6(4) subparagraph 2 HD, an exception is only permitted for reasons related to human health and public safety in connection with significant beneficial effects on the environment or after a positive opinion by the Commission. Furthermore, an exemption requires that a complete appropriate assessment and documentation of the same has been carried out beforehand, as knowledge of the effects on the Natura 2000-site and its conservation objectives is an essential prerequisite for the application of Article 6(4) HD.[116]

As a rule for exception, Article 6(4) HD and the requirements specified there must be interpreted strictly.[117] It is necessary to balance project-related impairments to the area against public interests, as well as to assess alternatives and coherence measures specific to nature conservation.[118] A diverging approval is to be made with the greatest possible protection of the affected area.[119] If the prerequisites are met, the decision to

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112 Settled case law ECJ, adjudication of 11.9.2012 – C-43/10, margin number 113; adjudication of 26.10.2006 – C-239/04, margin number 20; BVerwG, adjudication of 23.4.2014 – 9 A 25.12, margin number 48.

113 BVerwG, adjudication of 17.1.2007 – 9 A 20.05, margin number 66.

114 BVerwG, adjudication of 14.4.2010 – 9 A 5.08, margin number 91; decision of 10.11.2009 – 9 B 28.09, margin number 6; adjudication of 17.1.2007 – 9 A 20.05, margin number 44.

115 In detail European Commission 2021a, pp. 67–91; European Commission 2018a, pp. 53–70 and Möckel Nature Conservation 2017b.

116 ECJ, adjudication of 17.4.2018 – C-441/17, margin number 191; adjudication of 14.1.2016 – C-399/14, margin number 56 et seq.; adjudication of 15.5.2014 – C-521/12, margin number 36; adjudication of 11.4.2014 – C-258/11 margin number 35; adjudication of 16.2.2001 – C-182/10 margin number 74 et seq.; adjudication of 24.9.2011 – C-404/09, margin number 109, 157.

117 ECJ, adjudication of 17.4.2018 – C-441/17, margin number 189; adjudication of 14.1.2016 – C-399/14, margin number 73; adjudication of 20.9.2007 – C-304/05, margin number 83.

118 Cf. ECJ, adjudication of 11.9.2012 – C-43/10, margin number 114; BVerwG, adjudication of 1.4.2015 – 4 C 6.14, margin number 28.

119 BVerwG, adjudication of 9.7.2009 – 4 C 12.07, margin number 15. Similar BVerwG, decision of 3.6.2010 – 4 B 54.09, margin number 9; adjudication of 6.11.2013 – 9 A 14.12, margin number 79.

deviate is at the discretion of the competent authority,[120] although this authority has no discretion and, in principle, no margin of appreciation with regard to whether the requirements are met in the first place.[121]

While coherence measures are usually possible regarding operating areas belonging to the project when it comes to land-use in agriculture and forestry, the other two preconditions raise larger issues. Even if there is a great public interest in maintaining food security and preserving forests as carbon sinks and as a source for numerous ecosystem services, the individual areas used for agriculture and forestry are unlikely to be of any particular public interest, since due to the many agricultural and forestry areas within and outside of a member state, individual areas are dispensable. This may have to be assessed differently, however, if intervention is required to address an acute pest and disease infestation in order to avoid large-scale spread and, thus, greater social damage. An overriding interest could also come into consideration, if the agricultural and forestry land-use is necessary for the preservation of the protected habitat types or species (e.g. in the case of open land biotopes). However, this is unlikely to be the case, if management results in significant adverse effects on a Natura 2000-site. Mere private interests (e.g. economic profits), on the other hand, do not suffice as justification for exceptions,[122] since the public interest in protecting private property relates to the institution of private property, but not to individual property positions.[123]

The question of the local and factual lack of alternatives to agricultural and forestry land-use also raises major difficulties. On the one hand, at least in individual cases, the agricultural and forestry land-use can regularly be carried out on other areas outside of a Natura 2000-site and its protective area by purchasing or leasing corresponding areas. On the other hand, generally recognised and proven extensive ways of agricultural and forestry land-uses are established (e.g. organic farming,[124] including animal husbandry in accordance with EU regulation 834/2007/EC; forestry in accordance with FSC criteria), with which significant adverse effects can usually be avoided. Insofar as, as with the Dutch Programma Aanpak Stikstof, an attempt is made to claim an exemption from Art. 6(3) HD for the entire agricultural sector in a region or in the whole Member States on the basis of state-planned management measures and the classification of the entire agricultural sector and its profitability as an overriding reason in the public interest,[125] the ECJ has not followed this.[126] This is to be agreed with. On the

120 ECJ, adjudication of 4.4.2010 – C-241/08, margin number 72; adjudication of 26.10.2006 – C-239/04, margin number 25; adjudication of 21.7.2016 – C-387/15 and C-388/15, margin number 63.

121 BVerwG, adjudication of 6.11.2013 – 9 A 14.12, margin number 74; adjudication of 9.7.2009 – 4 C 12.07, margin number 15; decision of 3.6.2010 – 4 B 54.09, margin number 9. Different for national defence projects BVerwG, adjudication of 10.4.2013 – 4 C 3.12, margin number 19.

122 ECJ, adjudication of 16.2.2012 – C-182/10, margin number 77.

123 Misjudging Sobotta Journal for Nature Conservation 2018, p. 263.

124 Thünen-Institut 2019.

125 Cf. considerations of Advocate General J. Kokott in C-293/17 and C-294/17, margin numbers 158 et sqq.

126 Cf. ECJ, adjudication of 7.11.2018 – C-293/17 and C-294/17, margin number 105–137.

one hand, Art. 6(3) HD serves the protection of the individual Natura 2000 site and not merely an average improvement in the entire network of protected areas. On the other hand, the individual agricultural and forestry projects with potential negative impacts are subject to appropriate assessment; however, they are not relevant to the public interest in food security as well as for securing jobs and the overall prosperity.

Overall, the requirements for an exception under Article 6(4) HD are rarely met fully, when it comes to land-use in agriculture and forestry.

6. Conclusion

The ECJ decision of 7 November 2018 has far-reaching legal and practical implications for agricultural and forestry land-use in the EU. In practice, a large number of agricultural and forestry land-uses and management measures within and in the vicinity of Natura 2000-sites require an official screening and, if necessary, a full appropriate assessment under Article 6(3) HD and are only permitted if significant effects can be excluded. All agricultural and forestry measures in and in the vicinity of Natura 2000-sites are subject to the reservation of examination and prohibition, if their application has changed since 1992 or is being implemented for the first time and, according to general experience, is likely to prejudice the conservation objectives of the Habitats Directive (e.g. by dint of the use of fertilisers and plant protection products, the conversion of permanent pastures and other near-natural or extensive areas, drainage measures).

In legal terms, national laws or protected area-regulations for Natura 2000-sites may no longer exempt agricultural and forestry land-use generally from the prohibition of deterioration and disturbance, as well as from the applicability of an appropriate assessment, since such general exemption clauses violate Article 6(2) and (3) HD.[127] Rather, it must be ensured that, in the event of changes to the agricultural and forestry land-use that was carried out before the HD came into force, an official screening and, if necessary, a full appropriate assessment is carried out.[128] Changed land-use and management measures are only permitted if a significant adverse effect to Natura 2000-sites can be ruled out with certainty. Here, an unfavourable state of conservation restricts admissibility.[129] If there are no preconditions for an exemption as listed in Article 6(4) HD, agricultural and forestry land-uses must be adapted and incompatible management measures terminated.

According to the ECJ, no deviating standards can be derived from the fact that implemented projects have previously been unregulated or approved by the authorities, since proportionality is ensured by the exception options in Article 6(4) HD and, furthermore, no preservation of legitimate expectations exists in an unchangeable legal

127 ECJ adjudication of 21.6.2018 – C-543/16 margin number 91–94; adjudication of 10.1.2006 – C-98/03, margin number 39–43; adjudication of 17.9.1978 – 412/85.

128 Cf. Kelleghan et al. Atmospheric Environment 2021.

129 ECJ, adjudication of 7.11.2018 – C-293/17 and C-294/17, margin number 103.

situation.[130] This is in line with the jurisdiction of the German Federal Constitutional Court (BVerfG),[131] according to which the trust in an unchanged legal situation is not protected and the legislator is authorised to regulate hitherto unregulated matters and to restrict existing private benefits that are based on an ecologically questionable use of public goods.[132]

There is also no right under European law or human right to intensive agricultural and forestry land-use with maximum yields, given that economic efficiency of private land-use is given even with extensive cultivation (e.g. due to higher market prices for organic products, European direct or agri-environmental payments). In addition, restrictions on agriculture and forestry in Natura 2000-sites can be compensated by Member States, based on Article 30 EAFRD Regulation 1305/2013/EU (from 1.1.2023 according to Art. 72 CAP Regulation 2021/2115/EU).[133] Rather, the ownership and use of land are subject to greater social responsibility due to the limited availability of land and its integration into ecosystems and in the respective spatial situations in comparison to, for instance, mobile property or indoor uses.[134] Ecological conditions, such as the occurrence of rare or endangered animal and plant species, are intrinsic natural limitations to private ownership of land or as the German Federal Administrative Court put it:

'If the natural or spatial features of a plot of land are worth preserving in the general interest and require protection, this results in a kind of immanent, i.e. property innate restriction of the owner's powers, which is only given manifestation by nature and landscape protection regulations'.[135]

Even if, in view of the considerable spatial extent of agricultural and forestry land-uses within and in the vicinity of Natura 2000-sites, as well as the multitude of

130 Cf. ECJ, adjudication of 10.11.2016 – C-504/14, margin number 41; adjudication of 14.1.2016 – C-399/14, margin number 69–71, 74–78; adjudication of 11.9.2012 – C-43/10, margin number 136 et seq.; adjudication of 14.1.2010 – C-226/08, margin number 42–46; adjudication of 7.9.2004 – C-127/02, margin number 37.

131 From 1998 onwards, BVerfG decisions can be located, based on their case number and can be freely accessed under: https://www.bundesverfassungsgericht.de/EN/Entscheidungen/Suche/suche_node.html.

132 BVerfG, adjudication of 3.4.2001 – 1 BvR 1681/94; decision of 9.12.2003 – 1 BvR 558/99; decision of 25.7.2007 – 1 BvR 1031/07, margin numbers 35–37; adjudication of 20.4.2004 – 1 BvR 1748/99, margin number 41.

133 Cf. German jurisdiction of the Federal Constitutional Court (BVerfG) and the Federal Administrative Court (BVerwG): BVerfG, decision of 10.10.1997 – 1 BvR 310/84, NJW 1998, 367; decision of 22.11.1994 – 1 BvR 351/91, BVerfGE 91, 294 (310); BVerwG, adjudication of 25.10.2018 – 4 C 9.17, margin number 29.

134 Cf. German jurisdiction of the Federal Constitutional Court and the Federal Administrative Court: BVerfG adjudication of 22.05.2001 – 1 BvR 1512, 1677/97, BVerfGE 104, 1 [12]; adjudication of 12.01.1967 – 1 BvR 169/63, BVerfGE 21, 73 [82 et seq.]); BVerwG adjudication of 24.06.1993 – 7 C 26/92, BVerwGE 94, 1 [4].

135 BVerwG adjudication of 24.06.1993 – 7 C 26/92, BVerwGE 94, 1 [4] (translated by Harry Bauer). The original quote is: 'Wenn die natürlichen oder landschaftsräumlichen Gegebenheiten eines Grundstücks im Interesse der Allgemeinheit erhaltenswert sind und des Schutzes bedürfen, so ergibt sich hieraus eine Art immanenter, d. h. dem Grundstück selbst anhaftender Beschränkung der Eigentümerbefugnisse, die durch natur- und landschaftsschutzrechtliche Regelungen lediglich nachgezeichnet wird.'

different management methods and measures, it is understandable that Member States have hitherto refrained from subjecting these land-uses to an appropriate assessment as far as possible, as the interest in limiting assessing efforts for land users and authorities cannot justify a weakening of the protection standards required by European law.[136] According to the ECJ, anticipated, sweeping exemptions without an assessment of individual cases are only permitted to a very limited extent and, in particular, not permitted on the basis of general protective regulations or average values.

In order to meet the legal and practical requirements of European law by applying a reasonable amount of effort, it is advisable to subject agricultural and forestry land-uses that were previously free of approval to a general reservation of permission with a concentration effect, instead of assessing each individual management measure.[137] In addition, it is necessary to examine the extent to which certain agricultural and forestry land-uses can be exempted from protected area-regulations for individual Natura 2000-sites on the basis of early appropriate assessments.[138] The latter is only permissible under European law, however, if it is ensured that significant adverse effects cannot occur by means of specific legal requirements with regard to the type and extent of the management and its official monitoring. Furthermore, in view of constant ecological changes to protected habitats and species (e.g. due to population dynamics or climate change), as well as changes in cumulative effects (e.g. due to new projects or remote effects), such area-related exemptions must be subject to renewed appropriate assessments at periodic intervals in order to evaluate their impact, based on the current situation.

Conflicts of interest

The author declares no conflicts of interest. The founding sponsors had no role in the design of the study; in the collection, analyses or interpretation of data; in the writing of the manuscript and in the decision to publish the results

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136 Cf. ECJ, adjudication of 21.6.2018 – C-543/16, margin number 113 et seq.

137 Cf. also Möckel et al. 2014, p. 453 et sqq.

138 Cf. Kelleghan et al. Atmospheric Environment 2021; Tegner Anker et al. JEEPL 2019.

References

Anderson E, Mammides C (2020) Changes in land-cover within high nature value farmlands inside and outside Natura 2000 sites in Europe: A preliminary assessment. Ambio 49(12): 1958–1971. https://doi.org/10.1007/s13280-020-01330-y

Balias G (2018) The appropriate assessment under the European habitats directive: Interplay between science, law, and policy. Journal of International Wildlife Law and Policy 21(4): 281–306. https://doi.org/10.1080/13880292.2018.1551477

Balla S, Müller-Pfannenstiel K, Uhl R, Kiebel A, Lüttmann J, Lorentz H, Düring I, Schlutow A, Schleuschner T, Förster M, Becker C, Herzog W (2013) Untersuchung und Bewertung von straßenverkehrsbedingten Nährstoffeinträgen in empfindliche Biotope – Bericht zum FE-Vorhaben 84.0102/2009 der Bundesanstalt für Straßenwesen. Bundesanstalt für Straßenwesen, Forschung Straßenbau und Straßenverkehrstechnik Band Bd. 1099. Fachverl. NW in der Carl-Schünemann-Verl. GmbH, Bremen, 364 pp.

Beckmann M, Gerstner K, Akin-Fajiye M, Ceauşu S, Kambach S, Kinlock NL, Phillips HRP, Verhagen W, Gurevitch J, Klotz S, Newbold T, Verburg PH, Winter M, Seppelt R (2019) Conventional land-use intensification reduces species richness and increases production: A global meta-analysis. Global Change Biology 25(6): 1941–1956. https://doi.org/10.1111/gcb.14606

BLE [Bundesanstalt für Landwirtschaft und Ernährung] (2017) Agrarstatistisches Jahrbuch 2017, 384 pp.

BMEL [Bundesministerium für Ernährung und Landwirtschaft] (2018) Landwirtschaft verstehen - Fakten und Hintergründe, 36 pp.

Bowler DE, Heldbjerg H, Fox AD, de Jong M, Böhning-Gaese K (2019) Long-term declines of European insectivorous bird populations and potential causes. Conservation Biology 33(5): 1120–1130. https://doi.org/10.1111/cobi.13307

Brühl CA, Bakanov N, Köthe S, Eichler L, Sorg M, Hörren T, Mühlethaler R, Meinel G, Lehmann GUC (2021) Direct pesticide exposure of insects in nature conservation areas in Germany. Scientific Reports 11(1): e24144. https://doi.org/10.1038/s41598-021-03366-w

Buijs J, Mantingh M (2020) Forschungsbericht: Insektenschwund und Pestizidbelastung in Naturschutzgebieten in Nordrhein-Westfalen und Rheinland-Pfalz. WECF e.V. München, 215 pp. https://www.wecf.org/de/wp-content/uploads/2018/10/DPL_Pestizide_DE_2020.pdf

BVL [Bundesamt für Verbraucherschutz und Lebensmittelsicherheit] (2020) Zur Information für die Öffentlichkeit: Machbarkeitsanalyse für ein Monitoring über Rückstände in unbehandelten Flächen und auf unbehandelten Kulturen über die Verfrachtung von Pflanzenschutzmittelwirkstoffen, 74 pp.

Cortina C, Boggia A (2014) Development of policies for Natura 2000 sites: A multi-criteria approach to support decision makers. Journal of Environmental Management 141: 138–145. https://doi.org/10.1016/j.jenvman.2014.02.039

ECA [European Court of Auditors] (2017) More efforts needed to implement the Natura 2000 network to its full potential. Special Report Band 01, 68 pp.

EEA [European Environment Agency] (2017) Exceedance of critical loads of eutrophication deposition of nutrient nitrogen, 1 p.

EEA [European Environment Agency] (2020) State of nature in the EU - Results from reporting under the nature directives 2013–2018. EEA Report Band No 10/2020, 146 pp.

Epiney A, Gammenthaler N (2009) Das Rechtsregime der Natura-2000-Schutzgebiete: ein Beitrag zur Auslegung des Art. 6 RL 92/43 und seiner Umsetzung in ausgewählten Mitgliedstaaten. Nomos, Baden-Baden, 401 pp. https://doi.org/10.5771/9783845220147-155

European Commission (2012) Guidance on Aquaculture and Natura 2000, 89 pp.

European Commission (2014) Farming for Natura 2000 - Guidance on how to support Natura 2000 farming systems to achieve conservation objectives, based on Member States good practice experiences, 145 pp.

European Commission (2015a) Natura 2000 and Forests - Part I–II. Technical Report Band 2015-088, 114 pp.

European Commission (2015b) The State of Nature in the European Union - Report on the status of and trends for habitat types and species covered by the Birds and Habitats Directives for the 2007–2012 period as required under Article 17 of the Habitats Directive and Article 12 of the Birds Directive. COM(2015) 219 final, 19 pp.

European Commission (2016) FITNESS CHECK of the EU Nature Legislation (Birds and Habitats Directives), Commission Staff Working Document SWD (2016) 472 final, 126 pp.

European Commission (2018b) Production, yields and productivity. 11 pp.

European Commission (2021b) Newsletter Natur und Biodiversity NATURA 2000 - 'Branding' Natura 2000 goods and services. Band 50, 16 pp.

European Commission (2018a) Managing Natura 2000 sites - The provisions of Article 6 of the 'Habitats' Directive 92/43/EEC, 86 pp.

European Commission (2021a) Commission notice: Assessment of plans and projects in relation to Natura 2000 sites - Methodological guidance on Article 6(3) and (4) of the Habitats Directive 92/43/EEC, 114 pp.

European Commission (2020) EU Biodiversity Strategy for 2030 - Bringing nature back into our lives. COM(2020) 380 final, 27 pp.

Garcia-Ureta A (2018) Environmental assessment under the Habitats Directive: Something other than a procedure? Journal of Property. Planning and Environmental Law 10(2): 113–125. https://doi.org/10.1108/JPPEL-02-2018-0009

Hallmann CA, Sorg M, Jongejans E, Siepel H, Hofland N, Schwan H, Stenmans W, Müller A, Sumser H, Hörren T, Goulson D, de Kroon H (2017) More than 75 percent decline over 27 years in total flying insect biomass in protected areas. PLoS ONE 12(10): e0185809. https://doi.org/10.1371/journal.pone.0185809

Hermoso V, Morán-Ordóñez A, Brotons L (2018) Assessing the role of Natura 2000 at maintaining dynamic landscapes in Europe over the last two decades: Implications for conservation. Landscape Ecology 33(8): 1447–1460. https://doi.org/10.1007/s10980-018-0683-3

Hofmann F, Kruse-Plaß M, Schlechtriemen U, Wosniok W (2020) Pestizid-Belastung der Luft - Eine deutschlandweite Studie zur Ermittlung der Belastung der Luft mit Hilfe von technischen Sammlern, Bienenbrot, Filtern aus Be- und Entlüftungsanlagen und Luftgüte-Rindenmonitoring hinsichtlich des Vorkommens von 500 Pestizid-Wirkstoffen, insbesondere Glyphosat (durchgeführt von TIEM Integrierte Umweltüberwachung, Dortmund). Bündnis für eine enkeltaugliche Landwirtschaft e. V. und Umweltinstitut München, 143 pp. https://www.ackergifte-nein-danke.de/wp-content/uploads/2020/09/Studie_final_niedrig.pdf

Kattwinkel M, Kühne J-V, Foit K, Liess M (2011) Climate change, agricultural insecticide exposure, and risk for freshwater communities. Ecological Applications 21(6): 2068–2081. https://doi.org/10.1890/10-1993.1

Kegge R, Drahmann A (2020) The Programmatic Approach: Finding the right balance between the precautionary principle and the right to conduct a business. Journal for European Environmental & Planning Law 17(1): 76–98. https://doi.org/10.1163/18760104-01701006

Kelleghan DB, Hayes ET, Everard M, Keating P, Lesniak-Podsiadlo A, Curran TP (2021) Atmospheric ammonia and nitrogen deposition on Irish Natura 2000 sites: Implications for Irish agriculture. Atmospheric Environment 261: 118611. https://doi.org/10.1016/j.atmosenv.2021.118611

Lambrecht H, Trautner J (2007) Fachinformationssystem und Fachkonventionen zur Bestimmung der Erheblichkeit im Rahmen der FFH-VP. Bundesamt für Naturschutz, Bonn, 239 pp. http://www.bfn.de/fileadmin/MDB/documents/themen/natura2000/bfn-fue_ffh-fkv_bericht_und_anhang_juni__2007.zip

Liess M, Foit K, Knillmann S, Schäfer RB, Liess H-D (2016) Predicting the synergy of multiple stress effects. Scientific Reports 6: e32965. https://doi.org/10.1038/srep32965

Liess M, Liebmann L, Vormeier P, Weisner O, Altenburger R, Borchardt D, Brack W, Chatzinotas A, Escher B, Foit K, Gunold R, Henz S, Hitzfeld KL, Schmitt-Jansen M, Kamjunke N, Kaske O, Knillmann S, Krauss M, Küster E, Link M, Lück M, Möder M, Müller A, Paschke A, Schäfer RB, Schneeweiss A, Schreiner VC, Schulze T, Schüürmann G, von Tümpling W, Weitere M, Wogram J, Reemtsma T (2021) Pesticides are the dominant stressors for vulnerable insects in lowland streams. Water Research 201: 117262. https://doi.org/10.1016/j.watres.2021.117262

Milieu, IEEP, ICF (2016) Evaluation study to support the fitness check of the Birds and Habitats Directives. 668 pp.

Möckel S (2017a) The assessment of significant effects on the integrity of 'Natura 2000' sites under Article 6(2) and 6(3) of the Habitats Directive. Nature Conservation 23: 57–86. https://doi.org/10.3897/natureconservation.23.13602

Möckel S (2017b) The European ecological network 'Natura 2000' and its derogation procedure to ensure compatibility with competing public interests. Nature Conservation 23: 87–116. https://doi.org/10.3897/natureconservation.23.13603

Möckel S (2017c) The European ecological network 'Natura 2000' and the appropriate assessment for projects and plans under Article 6(3) of the Habitats Directive. Nature Conservation 23: 1–30. https://doi.org/10.3897/natureconservation.23.13599

Möckel S (2017d) The terms 'project' and 'plan' in the Natura 2000 appropriate assessment. Nature Conservation 23: 31–56. https://doi.org/10.3897/natureconservation.23.13601

Möckel S (2019) Germany's excessive agricultural nitrogen emissions and the need for improving existing regulatory concepts. Journal for European Environmental & Planning Law 16(3): 279–303. https://doi.org/10.1163/18760104-01603005

Möckel S, Köck W, Schramek J, Rutz C (2014) Rechtliche und andere Instrumente für vermehrten Umweltschutz in der Landwirtschaft. UBA-Texte Band 42/2014. Umweltbundesamt, Dessau, 596 pp. http://www.umweltbundesamt.de/sites/default/files/medien/378/publikationen/texte_42_2014_rechtliche_und_andere_instrumente.pdf

Mühlenberg H, Möckel S, Sattler C (2021) Regelungen zur Anwendung von Pestiziden in Schutzgebieten. UBA-Texte Band 49/2021. Umweltbundesamt, 134 pp. https://www.umweltbundesamt.de/sites/default/files/medien/1410/publikationen/2021-07-12_texte_49-2021_pestizide_schutzgebiete_0.pdf

Pellissier V, Schmucki R, Pe'er G, Aunins A, Brereton TM, Brotons L, Carnicer J, Chodkiewicz T, Chylarecki P, del Moral JC, Escandell V, Evans D, Foppen R, Harpke A, Heliölä J, Herrando S, Kuussaari M, Kühn E, Lehikoinen A, Lindström Å, Moshøj CM, Musche M, Noble D, Oliver TH, Reif J, Richard D, Roy DB, Schweiger O, Settele J, Stefanescu C, Teufelbauer N, Touroult J, Trautmann S, van Strien AJ, van Swaay CAM, van Turnhout C, Vermouzek Z, Voříšek P, Jiguet F, Julliard R (2020) Effects of Natura 2000 on nontarget bird and butterfly species based on citizen science data. Conservation Biology 34(3): 666–676. https://doi.org/10.1111/cobi.13434

Rada S, Schweiger O, Harpke A, Kühn E, Kuras T, Settele J, Musche M (2019) Protected areas do not mitigate biodiversity declines: A case study on butterflies. Diversity & Distributions 25(2): 217–224. https://doi.org/10.1111/ddi.12854

Sánchez-Bayo F, Wyckhuys KAG (2019) Worldwide decline of the entomofauna: A review of its drivers. Biological Conservation 232: 8–27. https://doi.org/10.1016/j.biocon.2019.01.020

Schoukens H (2014) Ongoing activities and natura 2000: Biodiversity protection vs legitimate expectations? Journal for European Environmental & Planning Law 11(1): 1–30. https://doi.org/10.1163/18760104-01101001

Schoukens H (2018) The quest for the holy grail and the Dutch integrated approach to nitrogen: How to align adaptive management strategies with the EU nature directives? Journal for European Environmental & Planning Law 15(2): 171–217. https://doi.org/10.1163/18760104-01502004

Schumacher J, Fischer-Hüftle P (2021) BNatSchG – Bundesnaturschutzgesetz: Kommentar mit Umweltrechtsbehelfsgesetz und Bundesartenschutzverordnung. 3 ed., Kohlhammer, Stuttgart, 1635 pp.

Siviter H, Bailes EJ, Martin CD, Oliver TR, Koricheva J, Leadbeater E, Brown MJF (2021) Agrochemicals interact synergistically to increase bee mortality. Nature 596(7872): 389–392. https://doi.org/10.1038/s41586-021-03787-7

Sobotta C (2018) The European Union legal boundaries for semi-natural habitats management in Natura 2000 sites. Journal for Nature Conservation 43: 261–267. https://doi.org/10.1016/j.jnc.2017.07.003

Squintani L (2020) Balancing nature and economic interests in the European Union: On the concept of mitigation under the Habitats Directive. Review of European, Comparative & International Environmental Law 29(1): 129–137. https://doi.org/10.1111/reel.12292

Sundseth K, Roth P (2013) Study on Evaluating and Improving the Article 6.3 Permit Procedure for Natura 2000 Sites. Europäische Kommission, 104 pp. http://ec.europa.eu/environment/nature/natura2000/management/docs/AA_final_analysis.pdf

Tegner Anker H, Backes CW, Baaner L, Keessen AM, Möckel S (2019) Natura 2000 and the Regulation of agricultural ammonia emissions. Journal for European Environmental & Planning Law 16(4): 340–371. https://doi.org/10.1163/18760104-01604003

Thünen-Institut [Johann Heinrich von Thünen-Institut] (2019) Leistungen des ökologischen Landbaus für Umwelt und Gesellschaft. Thünen Report Band 65, 364 pp.

Trentanovi G, Campagnaro T, Rizzi A, Sitzia T (2018) Synergies of planning for forests and planning for Natura 2000: Evidences and prospects from northern Italy. Journal for Nature Conservation 43: 239–249. https://doi.org/10.1016/j.jnc.2017.07.006

Tucker G, Stuart T, Naumann S, Stein U, Landgrebe-Trinkunaite R, Knol O (2019) Study on identifying the drivers of successful implementation of the Birds and Habitats Directives - Report to the European Commission. Institute for European Environmental Policy (IEEP), Brussels, 179 pp. https://circabc.europa.eu/sd/a/17c2b4a1-bf9c-4b7f-83d1-78734cc87943/Birds%20and%20Habitats%20Directives%20Success%20Drivers%20-%20Final%20Report.pdf

Wulfert K, Lau M, Widdig T, Müller-Pfannenstiel K, Mengel A (2015) Standardisierungspotenzial im Bereich der arten-und gebietsschutzrechtlichen Prüfung, FuE-Vorhaben FKZ 3512 82 2100 im Auftrag des BfN. BfN, 456 pp. http://www.bfn.de/fileadmin/BfN/eingriffsregelung/Dokumente/Standardisierungspotenzial_Arten-_und_Gebietsschutz_1.pdf

WWF [World Wide Fund For Nature] (2017) Preventing Paper Parks: How to make the EU Nature Laws work. 68 pp.